

### REMARKS

The Final Office Action, mailed November 16, 2007, considered claims 1-21, 23-32 and 34-42. Claims 1-21, 23-32, 34, and 37-42 were rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Pat. No. 6,718,552 to Goode, hereinafter *Goode*, in view of U.S. Pat. No. 5,758,257 to Herz et al., hereinafter *Herz*, U.S. Pat. Pub. No 2002/0095676 to Knee et al., hereinafter *Knee*, U.S. Pat. Pub. No. 2005/0071882 to Rodriguez et al., hereinafter *Rodriguez*, and U.S. Pat. No. 5,600,573 to Hendricks et al., hereinafter *Hendricks*.<sup>12</sup>

By this amendment claims 1, 18, 24 and 27 have been amended and new claims 43-47 have been added.<sup>3</sup> Claims 31, 32 and 34 have been cancelled. Accordingly, claims 1-21, 21-30, and 37-47 are pending, of which claims 1, 18, 24, 27 and 47 are the only independent claims at issue.

The present invention is generally directed to optimizing the use of a fixed bandwidth medium by dynamically restructuring the broadcasting of the channels based on feedback from home entertainment systems. For example, claim 1 defines, upon the occurrence of an event at a first home entertainment system, initiating usage tracking for a selected type of viewable moving image data usage for viewable moving image data of a selected channel where the selected type of viewable moving image data usage is selected from among a plurality of different types of viewable moving image data usage that can be tracked each time one of the plurality of different types of viewable moving image data usage are utilized at the first home entertainment system.

Claim 1 further defines, in response to the event, tracking a utilization of the selected type of viewable moving image data usage, from among the plurality of different types of viewable moving image data usage, for the moving image data at the first home entertainment system by generating user behavior information to indicate that the selected type of viewable moving image data usage is utilized. Next, claim 1 defines coupling the event with the generated user behavior information for the first home entertainment system and combining the event and

---

<sup>1</sup> Although the prior art status of the cited art is not being challenged at this time, Applicant reserves the right to challenge the prior art status of the cited art at any appropriate time, should it arise. Accordingly, any arguments and amendments made herein should not be construed as acquiescing to any prior art status of the cited art.

<sup>2</sup> Applicants note that a 35 U.S.C. 102(e) rejection is improper in this case as multiple references cannot be combined under 102(e). Applicants assume that Examiner intended for the rejections to be under 35 U.S.C. 103(a).

<sup>3</sup> Support for the amendments to the claims are found throughout the specification and previously presented claims, including but not limited to page 15, line 22 – page 16, line 3, page 17, lines 16-21, and page 20, lines 7-20 and cancelled original claims 22, 33, and 35.

the generated user behavior information from the first home entertainment system with events and corresponding generated user behavior information from other home entertainment systems, the other home entertainment systems also utilizing a type of viewable moving image data usage selected from among the plurality of different types of viewable moving image data usage for the selected channel, where the other home entertainment centers also track each time one of the plurality of different types of viewable moving image data usage is utilized in response to a corresponding event.

Claim 1 further defines dynamically restructuring the broadcast of at least the selected channel, by at least restructuring the viewable moving image data of the selected channel based on the different types of viewable moving image data usage indicated in the combined events and generated user behavior information so as to optimize the quality of the broadcast where the restructuring increases the quality of the broadcast by reassigning the channel from a first transponder of a satellite television system to a second transponder of the satellite television system where the second transponder has a greater detected amount of available bandwidth, in response to the tracked utilization and generated user behavior such that available bandwidth on the second transponder is allocated to the channel with a larger perceived user participation and dynamically increasing the bandwidth allocated to the selected channel, such that the signal strength of the selected channel is increased proportional to the actual detected viewing audience of the selected channel.

Independent method claim 18 and its computer program product counterpart (e.g., claim 27) and method claims 24 and 31 claim the method in terms similar to those of claim 1, except that the steps recited in claim 1 have been replaced by specific acts. Claim 47 is directed to minimizing disruption of a broadcast based on feedback from at least some of the home entertainment systems.

Applicants respectfully submit that the cited art of record does not anticipate or otherwise render the amended claims unpatentable for at least the reason that the cited art does not disclose, suggest, or enable each and every element of these claims.

### **35 U.S.C. 103 Rejections**

*Goode* is directed to a network bandwidth optimization system. The *Goode* system allocates channels within the broadest spectrum to video-programming having high viewership characteristics (Col. 3, lls. 6-9). Remaining video-programming is then allocated to the

remaining channels and is transmitted only upon demand by customers (Col. 3, lls. 10-12). Thus, channels characterized by high viewership statistics are semi-static, while channels characterized by lower viewership statistics are dynamically allocated on-demand channels or narrow cast channels (Col. 3, l. 21 – Col. 4, l. 50). With variation in viewership over time, programming can change between different channels or can cease. (Col. 4, lls. 12-50). Session Control Mangers (SCM) can collect information from subscriber stations regarding frequency of channel usage and favorite channel selections (Col. 5, lls. 36-39). Collected information is made available to a broadcast interconnect, which uses the information to manage broadcast and narrowcast channels (Col. 5, lls. 39-42). *Goode* is silent on increasing bandwidth of a specific selected channel and is further silent on increasing bandwidth to increase signal strength in proportion to the number of viewers watching a program.

*Knee* is cited primarily to show various types of program usage, other than simply watching or tuning to the program. For example, *Knee* teaches recording a program, setting a reminder and other uses (Fig. 3). *Rodriguez* teaches a technique for allocating bandwidth dynamically between different content delivery modes. For example, if a content delivery system detects that more users are viewing pay-per-view programming at a certain time, more channels can be allocated to pay-per-view. If more viewers are viewing on-demand programming, channels can be diverted from another delivery mode to on-demand programming (par. [0044], [0046]-[0048]). *Herz* was cited primarily to show a system for receiving active feedback from customers (Col. 6:14-55). *Hendricks* was cited primarily to show an operations center capable of sending different groups of programs to different satellite transponders (Col. 8:3-11). *Knee*, *Rodriguez*, *Herz* and *Hendricks* are silent on increasing bandwidth of a specific selected channel and are further silent on increasing bandwidth to increase signal strength in proportion to the number of viewers watching a program.

Thus, none of the cited art teaches or suggests dynamically restructuring the broadcast of at least the selected channel, by at least restructuring the viewable moving image data of the selected channel based on the different types of viewable moving image data usage indicated in the combined events and generated user behavior information so as to optimize the quality of the broadcast where the restructuring increases the quality of the broadcast by reassigning the channel from a first transponder of a satellite television system to a second transponder of the satellite television system where the second transponder has a greater detected amount of

available bandwidth, in response to the tracked utilization and generated user behavior such that available bandwidth on the second transponder is allocated to the channel with a larger perceived user participation and dynamically increasing the bandwidth allocated to the selected channel, such that the signal strength of the selected channel is increased proportional to the actual detected viewing audience of the selected channel, as recited in claim 1. At least for this reason, claim 1 patentably defines over the art of record. At least for this reason, claims 18, 24 and 27 also patentably define over the art of record. Since each of the dependent claims depend from one of claims 1, 18, 24 and 27, each of the dependent claims also patentably define over the art of record for at least the same reasons.

Furthermore, none of the cited art teaches or suggests, based on combined event and generated user behavior information, determining an optimal time to disrupt programming on the selected channel such that a minimal number of users are affected by the disruption and shutting down the viewable moving image data broadcast on the selected channel during the determined optimal time, as recited in claim 47. At least for this reason, claim 47 patentably defines over the art of record.

Although each of the dependent claims patentably define over the prior art of record for the same reasons as their corresponding base claims, many of the dependent claims also independently distinguish over the prior art of record. For example, the cited art of record fails to disclose or suggest delaying increasing the bandwidth allocated to the selected channel until a statistically significant number of home entertainment systems have transmitted generated user behavior information, as recited in claim 43, or wherein the increased bandwidth for the selected channel enables user interaction along with the broadcast of the viewable moving image data, as recited in claim 46.

In view of the foregoing, Applicant respectfully submits that the other rejections to the claims are now moot and do not, therefore, need to be addressed individually at this time. It will be appreciated, however, that this should not be construed as Applicant acquiescing to any of the purported teachings or assertions made in the last action regarding the cited art or the pending application, including any official notice. Instead, Applicant reserves the right to challenge any of the purported teachings or assertions made in the last action at any appropriate time in the future, should the need arise. Furthermore, to the extent that the Examiner has relied on any Official Notice, explicitly or implicitly, Applicant specifically requests that the Examiner

provide references supporting the teachings officially noticed, as well as the required motivation or suggestion to combine the relied upon notice with the other art of record.

In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, the Examiner is requested to contact the undersigned attorney at (801) 533-9800.

Dated this 16<sup>th</sup> day of January, 2007.

Respectfully submitted,

/GREGORY R. LUNT/

RICK D. NYDEGGER  
Registration No. 28,651  
GREGORY R. LUNT  
Registration No.: 57,354  
Attorneys for Applicant  
Customer No. 47973

RDN:GRL.ds  
DS0000008972V001